OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/909,796

DATE 11/06/2001
TIME 15:11:40

Input Set : A:\10799-13 Sequence Listing.txt
Output Set: N:\CRF3\11062001\I909796.raw

```
      4 <110> APPLICANT: TAYLOR, Catherine, et al.
W--> 5 <120> TITLE OF INVENTION: DNA ENCODING APOPTOSIS-INDUCED EUCARYOTIC INITIATION FACTOR-
5A AND
W--> 6        DEOXYHYPUSINE SYNTHASE AND A METHOD FOR CONTROLLING APOPTOSIS IN ANIMALS AND
W--> 7        HUMANS
      9 <130> FILE REFERENCE: 10799/13
     11 <140> CURRENT APPLICATION NUMBER: 09/909,796
C--> 12 <141> CURRENT FILING DATE: 2001-10-15
     14 <160> NUMBER OF SEQ ID NOS: 21
     16 <170> SOFTWARE: FastSEQ for Windows Version 4.0
     18 <210> SEQ ID NO: 1
     19 <211> LENGTH: 1139
     20 <212> TYPE: DNA
     21 <213> ORGANISM: Rodent
     23 <220> FEATURE:
     24 <221> NAME/KEY: CDS
     25 <222> LOCATION: (33)...(497)
     27 <400> SEQUENCE: 1
     28 caggtctaga gttggaatcg aagcctctta aa atg gca gat gat ttg gac ttc   53
     29                                    Met Ala Asp Asp Leu Asp Phe
     30                                     1               5
     32 gag aca gga gat gca ggg gcc tca gcc acc ttc cca atg cag tgc tca  101
     33 Glu Thr Gly Asp Ala Gly Ala Ser Ala Thr Phe Pro Met Gln Cys Ser
     34          10                  15                  20
     36 gca tta cgt aag aat ggt ttt gtg gtg ctc aag ggc cgg cca tgt aag  149
     37 Ala Leu Arg Lys Asn Gly Phe Val Val Leu Lys Gly Arg Pro Cys Lys
     38          25                  30                  35
     40 atc gtc gag atg tct act tcg aag act ggc aag cat ggc cat gcc aag  197
     41 Ile Val Glu Met Ser Thr Ser Lys Thr Gly Lys His Gly His Ala Lys
     42  40                  45                  50                  55
     44 gtc cat ctg gtt ggt att gat att ttt act ggg aag aaa tat gaa gat  245
     45 Val His Leu Val Gly Ile Asp Ile Phe Thr Gly Lys Lys Tyr Glu Asp
     46              60                  65                  70
     48 atc tgc ccg tcg act cat aac atg gat gtc ccc aac atc aaa agg aat  293
     49 Ile Cys Pro Ser Thr His Asn Met Asp Val Pro Asn Ile Lys Arg Asn
     50              75                  80                  85
     52 gat ttc cag ctg att ggc atc cag gat ggg tac cta tcc ctg ctc cag  341
     53 Asp Phe Gln Leu Ile Gly Ile Gln Asp Gly Tyr Leu Ser Leu Leu Gln
     54              90                  95                  100
     56 gac agt ggg gag gta cga gag gac ctt cgt ctg cct gag gga gac ctt  389
     57 Asp Ser Gly Glu Val Arg Glu Asp Leu Arg Leu Pro Glu Gly Asp Leu
     58          105                 110                 115
     60 ggc aag gag att gag cag aag tat gac tgt gga gaa gag atc ctg atc  437
     61 Gly Lys Glu Ile Glu Gln Lys Tyr Asp Cys Gly Glu Glu Ile Leu Ile
     62 120                 125                 130                 135
     64 aca gtg ctg tcc gcc atg aca gag gag gca gct gtt gca atc aag gcc  485
     65 Thr Val Leu Ser Ala Met Thr Glu Glu Ala Ala Val Ala Ile Lys Ala
     66              140                 145                 150
```

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68 atg gca aaa taa ctggcttcca gggtggcggt ggtggcagca gtgatccatg     537
69 Met Ala Lys  *
72 agcctacaga ggcccctccc ccagctctgg ctgggccctt ggctggactc ctatccaatt 597
73 tatttgacgt tttattttgg ttttcctcac cccttcaaac tgtcggggag accctgccct 657
74 tcacctagct cccttggcca ggcatgaggg agccatggcc ttggtgaagc tacctgcctc 717
75 ttctctcgca gccctgatgg gggaaaggga gtgggtactg cctgtggttt aggttcccct 777
76 ctcccttttt ctttttaatt caatttggaa tcagaaagct gtggattctg gcaaatggtc 837
77 ttgtgtcctt tatcccactc aaacccatct ggtcccctgt tctccatagt ccttcacccc 897
78 caagcaccac tgacagactg gggaccagcc cccttccctg cctgtgtctc ttcccaaacc 957
79 cctctatagg ggtgacaaga agaggagggg gggaggggac acgatccctc ctcaggcatc 1017
80 tgggaaggcc ttgcccccat gggctttacc ctttcctgtg ggctttctcc ctgacacatt 1077
81 tgttaaaaat caaacctgaa taaaactaca agtttaatat gaaaaaaaaa aaaaaaaaaa 1137
82 aa                                                              1139
84 <210> SEQ ID NO: 2
85 <211> LENGTH: 154
86 <212> TYPE: PRT
87 <213> ORGANISM: Rodent
89 <400> SEQUENCE: 2
90 Met Ala Asp Asp Leu Asp Phe Glu Thr Gly Asp Ala Gly Ala Ser Ala
91 1               5                   10                  15
92 Thr Phe Pro Met Gln Cys Ser Ala Leu Arg Lys Asn Gly Phe Val Val
93                 20                  25                  30
94 Leu Lys Gly Arg Pro Cys Lys Ile Val Glu Met Ser Thr Ser Lys Thr
95          35                  40                  45
96 Gly Lys His Gly His Ala Lys Val His Leu Val Gly Ile Asp Ile Phe
97       50                  55                  60
98 Thr Gly Lys Lys Tyr Glu Asp Ile Cys Pro Ser Thr His Asn Met Asp
99 65                  70                  75                  80
100 Val Pro Asn Ile Lys Arg Asn Asp Phe Gln Leu Ile Gly Ile Gln Asp
101                 85                  90                  95
102 Gly Tyr Leu Ser Leu Leu Gln Asp Ser Gly Glu Val Arg Glu Asp Leu
103             100                 105                 110
104 Arg Leu Pro Glu Gly Asp Leu Gly Lys Glu Ile Glu Gln Lys Tyr Asp
105             115                 120                 125
106 Cys Gly Glu Glu Ile Leu Ile Thr Val Leu Ser Ala Met Thr Glu Glu
107       130                 135                 140
108 Ala Ala Val Ala Ile Lys Ala Met Ala Lys
109 145                 150
112 <210> SEQ ID NO: 3
113 <211> LENGTH: 462
114 <212> TYPE: DNA
115 <213> ORGANISM: Rodent
117 <400> SEQUENCE: 3
118 atggcagatg acttggactt cgagacagga gatgcagggg cctcagccac cttcccaatg 60
119 cagtgctcag cattacgtaa gaatggcttt gtggtgctca aaggccggcc atgtaagatc 120
120 gtcgagatgt ctacttcgaa gactggcaag cacggccacg ccaaggtcca tctggttggt 180
121 attgacatct ttactgggaa gaaatatgaa gatatctgcc cgtcaactca taatatggat 240
122 gtccccaaca tcaaaaggaa tgacttccag ctgattggca tccaggatgg gtacctatca 300
123 ctgctccagg acagcgggga ggtacgagag gaccttcgtc tccctgaggg agaccttggc 360
```

```
     124 aaggagattg agcagaagta cgactgtgga gaagagatcc tgatcacggt gctgtctgcc 420
     125 atgacagagg aggcagctgt tgcaatcaag gccatggcaa aa                     462
     127 <210> SEQ ID NO: 4
     128 <211> LENGTH: 462
     129 <212> TYPE: DNA
     130 <213> ORGANISM: Rodent
     132 <220> FEATURE:
     133 <221> NAME/KEY: misc_feature
     134 <222> LOCATION: (1)...(462)
     135 <223> OTHER INFORMATION: n = A,T,C or G                  ok
     137 <400> SEQUENCE: 4
     138 atggcagacg aaattgattt cactactgga gatgccgggg cttccagcac ttaccctatg 60
     139 cagtgctcgg ccttgcgcaa aaacggcttc gtggtgctca aaggacgacc atgcaaaata 120
     140 gtggagatgt caacttccaa aactggaaag catggtcatg ccaaggttca ccttgttgga 180
     141 attgatattt tcacgggcaa aaaatatgaa gatatttgtc cttctactca caacatggat 240
     142 gttccaaata ttaagagaaa tgattatcaa ctgatatgca ttcaagatgg ttacctttcc 300
     143 ctgctgacag aaactggtga agttcgtgag gatcttaaac tgccagaagg tgaactaggc 360
     144 aaagaaatag agggaaaata caatgcaggt gaagatgtac aggtgtctgt catgtgtgca 420
W--> 145 atgagtgaag aatatgctgt agccataaaa ccctnngcaa at          ok         462
     147 <210> SEQ ID NO: 5
     148 <211> LENGTH: 462
     149 <212> TYPE: DNA
     150 <213> ORGANISM: Rodent
     152 <400> SEQUENCE: 5
     153 atggcagatg atttggactt cgagacagga gatgcagggg cctcagccac cttcccaatg 60
     154 cagtgctcag cattacgtaa gaatggtttt gtggtgctca aaggccggcc atgtaagatc 120
     155 gtcgagatgt ctacttcgaa gactggcaag catggccatg ccaaggtcca tctggttggc 180
     156 attgacattt ttactgggaa gaaatatgaa gatatctgcc cgtcgactca taatatggat 240
     157 gtccccaaca tcaaacgaaa tgacttccag ctgattggca tccaggatgg gtacctatcc 300
     158 ctgctccagg acagtgggga ggtacgagag gaccttcgtc tgcctgaagg agaccttggc 360
     159 aaggagattg agcagaagta tgactgtgga gaagagatcc tgatcacagt gctgtctgcc 420
     160 atgacagagg aggcagctgt tgcaatcaag gccatggcaa aa                     462
     162 <210> SEQ ID NO: 6
     163 <211> LENGTH: 606
     164 <212> TYPE: DNA
     165 <213> ORGANISM: Rodent
     167 <220> FEATURE:
     168 <221> NAME/KEY: CDS
     169 <222> LOCATION: (1)...(456)
     171 <400> SEQUENCE: 6
     172 gct gtg tat tat tgg gcc cat aag aac cac ata cct gtg ctg agt cct  48
     173 Ala Val Tyr Tyr Trp Ala His Lys Asn His Ile Pro Val Leu Ser Pro
     174 1               5                   10                  15
     176 gca ctc aca gac ggc tca ctg ggt gac atg atc ttt ttc cat tcc tat  96
     177 Ala Leu Thr Asp Gly Ser Leu Gly Asp Met Ile Phe Phe His Ser Tyr
     178             20                  25                  30
     180 aaa aac cca ggc ttg gtc ctg gac atc gtt gaa gac ctg cgg ctc atc  144
     181 Lys Asn Pro Gly Leu Val Leu Asp Ile Val Glu Asp Leu Arg Leu Ile
     182             35                  40                  45
```

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```
184 aac atg cag gcc att ttc gcc aag cgc act ggg atg atc atc ctg ggt   192
185 Asn Met Gln Ala Ile Phe Ala Lys Arg Thr Gly Met Ile Ile Leu Gly
186     50              55              60
188 gga ggc gtg gtc aag cac cac atc gcc aat gct aac ctc atg cgg aat   240
189 Gly Gly Val Val Lys His His Ile Ala Asn Ala Asn Leu Met Arg Asn
190   65              70              75              80
192 gga gct gac tac gct gtt tat atc aac aca gcc cag gag ttt gat ggc   288
193 Gly Ala Asp Tyr Ala Val Tyr Ile Asn Thr Ala Gln Glu Phe Asp Gly
194             85              90              95
196 tca gac tca gga gcc cgg cca gat gag gct gtc tcc tgg ggc aag atc   336
197 Ser Asp Ser Gly Ala Arg Pro Asp Glu Ala Val Ser Trp Gly Lys Ile
198             100             105             110
200 cgg atg gat gca cag cca gta aag gtc tat gct gat gca tct ctg gtt   384
201 Arg Met Asp Ala Gln Pro Val Lys Val Tyr Ala Asp Ala Ser Leu Val
202     115             120             125
204 ttc ccc ttg ctg gtg gct gag aca ttc gcc caa aag gca gat gcc ttc   432
205 Phe Pro Leu Leu Val Ala Glu Thr Phe Ala Gln Lys Ala Asp Ala Phe
206     130             135             140
208 aga gct gag aag aat gag gac tga gcagatgggt aaagacggag gcttctgcca  486
209 Arg Ala Glu Lys Asn Glu Asp  *
210 145             150
212 cacctttatt tattatttgc ataccaaccc ctcctgggcc ctctccttgg tcagcagcat  546
213 cttgagaata aatggccttt ttgttggttt ctgtaaaaaa aggactttaa aaaaaaaaaa  606
216 <210> SEQ ID NO: 7
217 <211> LENGTH: 151
218 <212> TYPE: PRT
219 <213> ORGANISM: Rodent
221 <400> SEQUENCE: 7
222 Ala Val Tyr Tyr Trp Ala His Lys Asn His Ile Pro Val Leu Ser Pro
223   1               5               10              15
224 Ala Leu Thr Asp Gly Ser Leu Gly Asp Met Ile Phe Phe His Ser Tyr
225             20              25              30
226 Lys Asn Pro Gly Leu Val Leu Asp Ile Val Glu Asp Leu Arg Leu Ile
227         35              40              45
228 Asn Met Gln Ala Ile Phe Ala Lys Arg Thr Gly Met Ile Ile Leu Gly
229     50              55              60
230 Gly Gly Val Val Lys His His Ile Ala Asn Ala Asn Leu Met Arg Asn
231 65              70              75              80
232 Gly Ala Asp Tyr Ala Val Tyr Ile Asn Thr Ala Gln Glu Phe Asp Gly
233             85              90              95
234 Ser Asp Ser Gly Ala Arg Pro Asp Glu Ala Val Ser Trp Gly Lys Ile
235             100             105             110
236 Arg Met Asp Ala Gln Pro Val Lys Val Tyr Ala Asp Ala Ser Leu Val
237     115             120             125
238 Phe Pro Leu Leu Val Ala Glu Thr Phe Ala Gln Lys Ala Asp Ala Phe
239     130             135             140
240 Arg Ala Glu Lys Asn Glu Asp
241 145             150
244 <210> SEQ ID NO: 8
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RAW SEQUENCE LISTING   DATE: 11/06/2001
PATENT APPLICATION: **US/09/909,796**   TIME: 15:11:40

Input Set : **A:\l0799-13 Sequence Listing.txt**
Output Set: **N:\CRF3\11062001\I909796.raw**

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245 <211> LENGTH: 453
246 <212> TYPE: DNA
247 <213> ORGANISM  Rodent
249 <400> SEQUENCE  8
250 tccgtgtatt actgggccca gaagaaccac atccctgtgt ttagtcccgc acttacagac 60
251 ggctcgctgg gcgacatgat cttcttccat tcctacaaga acccgggcct ggtcctggac 120
252 atcgttgagg acctgaggct catcaacaca caggccatct ttgccaagtg cactgggatg 180
253 atcattctgg gcgggggcgt ggtcaagcac cacattgcca atgccaacct catgcggaac 240
254 gggqccgact acgctgttta catcaacaca gcccaggagt ttgatggctc tgactcaggt 300
255 gcccgaccag acgaggctgt ctcctggggc aagatccggg tggatgcaca gcccgtcaag 360
256 gtctatgctg acgcctccct ggtcttcccc ctgcttgtgg ctgaaacctt tgcccagaag 420
257 atggatgcct tcatgcatga gaagaacgag gac 453
259 <210> SEQ ID NO: 9
260 <211> LENGTH: 20
261 <212> TYPE: DNA
262 <213> ORGANISM  Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Primer
267 <221> NAME/KEY  misc_feature
268 <222> LOCATION  (1)...(20)
269 <223> OTHER INFORMATION: n = A,T,C or G
271 <400> SEQUENCE  9
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W--> 272 tcsaarachg gnaagcaygg   20
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274 <210> SEQ ID NO: 10
275 <211> LENGTH: 42
276 <212> TYPE: DNA
277 <213> ORGANISM  Rodent
279 <220> FEATURE:
280 <223> OTHER INFORMATION: Primer
282 <400> SEQUENCE  10
283 gcgaagcttc catggctcga gttttttttt ttttttttttt tt 42
285 <210> SEQ ID NO: 11
286 <211> LENGTH: 972
287 <212> TYPE: DNA
288 <213> ORGANISM: Rodent
290 <220> FEATURE:
291 <221> NAME/KEY: CDS
292 <222> LOCATION: (1)...(330)
294 <400> SEQUENCE: 11
295 tcg aag acc ggt aag cac ggc cat gcc aag gtc cat ctg gtt ggt att   48
296 Ser Lys Thr Gly Lys His Gly His Ala Lys Val His Leu Val Gly Ile
297  1               5                  10                  15
299 gat att ttt act ggg aag aaa tat gaa gat atc tgc ccg tcg act cat   96
300 Asp Ile Phe Thr Gly Lys Lys Tyr Glu Asp Ile Cys Pro Ser Thr His
301          20                  25                  30
303 aac atg gat gtc ccc aac atc aaa agg aat gat ttc cag ctg att ggc  144
304 Asn Met Asp Val Pro Asn Ile Lys Arg Asn Asp Phe Gln Leu Ile Gly
305          35                  40                  45
307 atc cag gat ggg tac cta tcc ctg ctc cag gac agt ggg gag gta cga  192
```

VERIFICATION SUMMARY   DATE: 11/06/2001
PATENT APPLICATION: **US/09/909,796**   TIME: 15:11:41

Input Set : **A:\10799-13 Sequence Listing.txt**
Output Set: **N:\CRF3\11062001\I909796.raw**

L 5 M:283 W: Missing Blank Line separator, <120> field identifier
L 12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L 145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L.272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9